



# Connecting Math to Our Lives and Communities

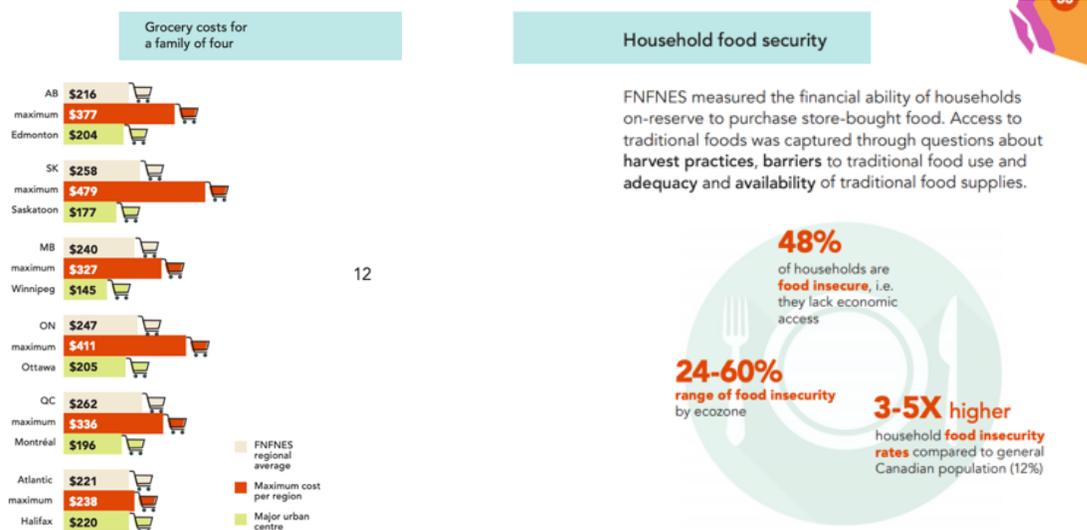
## The Cost of Dinner

### Introduction

In the first activity we discussed the importance of every human having access to food that will be able maintain a balanced diet. Food insecurity occurs when people don't have access to affordable food options. One factor that we discovered was the importance of being geographically close to a location that can provide people with a variety of foods and resources (such as a food market, grocery store, or community gardens). But is this the only factor that decides whether a person can get access to food?

You might be familiar with what food costs in Nova Scotia, have you ever considered how these prices may vary depending on where you live? For example, in Nunavut food prices are significantly higher than what we are used to seeing in Nova Scotia. This is due to the high cost of importing foods that are not produced locally in the territory. For example, a 5kg bag of flour in Nova Scotia is sold for around \$8.00, and in Nunavut is sold for over \$20.00!

This availability of affordable food is an important part of something called food sovereignty. Another part of food sovereignty is having access to a person's traditional food. The Assembly of First Nations, the University of Ottawa, and the Université de Montréal conducted a comprehensive study to address gaps in knowledge about the diet, traditional food, and environmental contaminants to which First Nations are exposed. This study not only looked at a family's access to the appropriate amount of food but also showed the importance of indigenous communities having access to their traditional foods. It found that a lot of households on-reserve did not have sufficient access to traditional foods and experienced food insecurity.



## **Math Connections**

- Finances
- Multiplication
- Addition

## **Activity**

In this activity you will use the excel sheet titled “Food Planning and Prices” which can be found on the CMTOLC website under the Food Security section. You will explore how the prices of basic meals may change depending on your location within Canada. This excel sheet will use the prices from a grocery order to calculate the price of a meal made using the purchased ingredients. Using the grocery lists below update the food prices in the excel sheet (column k) to determine the prices of a breakfast, lunch, and dinner.

### **Scenario 1**

You live in a small town in Nova Scotia and purchase your grocery order from a local Atlantic Superstore, these are the prices you paid for your grocery items:

<b>Grocery Item</b>	<b>Price</b>
<b>Breakfast</b>	
Oats	\$3.99
Almond Milk	\$3.50
Bananas	\$2.25
Peanut Butter	\$6.50
Syrup	\$3.29
<b>Lunch</b>	
Bread	\$3.00
Ham	\$5.00
Bacon	\$6.49
Lettuce	\$2.79
Tomato	\$1.20
Mayo	\$4.49
<b>Dinner</b>	
Chicken	\$7.87
Rice	\$5.49
Sweet potato	\$2.77
Green Beans	\$4.99

If you were to use the ingredients from this grocery order to make the three meals listed in the excel sheet what would be the cost for:

- Breakfast \_\_\_\_\_
- Lunch \_\_\_\_\_
- Dinner \_\_\_\_\_

## Scenario 2

You live in Nunavut's capital, Iqaluit, and purchase your grocery order from a local Northmart grocer, these are the prices you paid for your grocery items:

Grocery Item	Price
<b>Breakfast</b>	
Oats	\$13.34
Almond Milk	\$7.00
Bananas	\$5.00
Peanut Butter	\$11.36
Syrup	\$9.89
<b>Lunch</b>	
Bread	\$6.44
Ham	\$8.50
Bacon	\$12.50
Lettuce	\$10.00
Tomato	\$2.00
Mayo	\$10.00
<b>Dinner</b>	
Chicken	\$11.06
Rice	\$8.99
Sweet potato	\$5.50
Green Beans	\$8.99

If you were to use the ingredients from this grocery order to make the three meals listed in the excel sheet what would be the cost for:

- Breakfast \_\_\_\_\_
- Lunch \_\_\_\_\_
- Dinner \_\_\_\_\_

### Scenario 3

You live in Halifax with a backyard that can grow a small garden, anything that you can't grow you purchase from a local farmers market and grocery store. The maple syrup that you use was obtained by trading fresh vegetables from your garden to a family member who taps sugar maple trees in the spring. These are the prices you paid for your grocery items (the items grown in a garden are estimation of the price it takes to grow these items):

Grocery Item	Price
<b>Breakfast</b>	
Oats	\$3.99
Almond Milk	\$3.50
Bananas	\$2.25
Peanut Butter	\$6.50
Syrup	\$0.00
<b>Lunch</b>	
Bread	\$3.00
Ham	\$5.00
Bacon	\$6.49
Lettuce*	\$0.02
Tomato*	\$0.01
Mayo	\$4.49
<b>Dinner</b>	
Chicken	\$7.87
Rice	\$5.49
Sweet potato*	\$0.20
Green Beans*	\$0.01

\*The items you are growing are planted in previously built garden boxes grown in kitchen scraps that you had been composting throughout the winter.

If you were to use the ingredients from this grocery order to make the three meals listed in the excel sheet what would be the cost for:

- Breakfast \_\_\_\_\_
- Lunch \_\_\_\_\_
- Dinner \_\_\_\_\_

## **Think About It!**

As we have already discussed the price of your food can vary depending on where you live in Canada, but did how we obtain our food also impact the price of food? What about the price decrease of foraging food from wild landscapes or trading food that we grow with others to obtain things like bread, chicken, or ham?

- Compare the prices in all three scenarios, what do you notice?
- These prices are for one individual meal, how many people are in your family? How would the meal prices vary if you were to adjust them to make 2, 3, 5 servings?
- Think about what you found in scenario 3, is there anything that could help to lower food costs in Nunavut or other Northern areas?



Addressing Food Insecurity: A collection of new grow pods have been constructed in Nunavut to provide food to the people living in Gjoa Haven. These pods were developed by the Artic Research Foundation who are working with community elders to ensure that local heritage is being preserved. This includes growing berries and flowers that are local to the area which are typically only harvestable during the short summer season.

**Send us a photo of your findings at Connecting Math to Our Lives and Communities email ([cmtolcstfx@gmail.com](mailto:cmtolcstfx@gmail.com))! 😊**